

a. m., heavy squall from S., dismasted vessel. 10th, 40° 40' N., 67° 12' W., squally, rain. Bark, "Serana," from New Castle, N. S. W., at San Francisco June 10th, reports, no date, lat., 38° 50' N., 168° W., hurricane beginning at SSE., ending at W. by N., lasting 48 hours, and blowing heavy for 4 days. 11th, "Schooner" Speedwell," Trinidad to Boston, thrown by current on San Felipe Reef during night, total loss. 12th, 49° 50' N., 5° 53' W., W. stormy with rain. 13th, 42° 49' N., 54° 28' W., high W. sea; 50° 03' N., 13° 50' W., high W'y swell; 51° 04' N., 42° 13' W., SW. and NW. brisk gale, showers, heavy W. sea. 14th, bark "Loch Doon", at San Francisco from N. S. W., reports gale in long. 129° W., no date. 16th, 49° 30' N., 11° 21' W., NW. stormy. 20th, 49° 55' N., 15° 54' W., heavy NW. sea. 21st, 49° 39' N., 23° 31' W., heavy NW. sea. 22nd, 48° 45' N., 33° 30' W., high W'y swell. 25th, 48° 30' N., 23° 14' W., heavy sea. 26th, 47° 54' N., 30° 43' W., strong NW. breeze and squally. 28th, 47° 48' N., 46° 21' W., heavy WSW. sea and thick fog; 45° 12' N., 45° 03' W., W. stormy, ship labored heavily, high sea; 51° 03' N., 24° 16' W., NW. fresh winds and squalls; 51° 02' N., 14° 46' W., fresh gale, rain and high sea. 29th, 49° 59' N., 33° 16' W., squally, rain; 50° 25' N., 21° 48' W., strong NE. gale, rain, high, confused sea.

*Ice at Sea.*—Steamer "Polynesian," at Liverpool, June 24th, from Montreal, reports collided with iceberg when in Straits of Belle Isle.

*Ocean Currents.*—S. S. "Penusylvania," running between New York and Liverpool, reports, June 15th, "strong current, setting SW., one mile per hour, to the north of the Gulf Stream, extending from Fastnet Rock, (south coast of Ireland,) to George's Bank, since April 15th; prevailing wind during same period NE. and E.

*Tornado in China.*—April 11th, Canton, China, terrible tornado from SW. to NE.; average breadth of track 600 feet; came from the sea in form of waterspout; struck the settlement of Stameen, and passed thence northeastward over Canton, where it caused immense damage to native portion of city; 10,000 persons reported killed. Considerable damage was also done and numbers of lives lost at the villages of Pah Hin-Hock and Pah Hock Tang, about two or three miles north of Canton, and at Fatshan.

## TEMPERATURE OF THE AIR.

The isothermal lines on chart No. II illustrate the general distribution of the temperature of the air for the month. The average of the mean temperatures is slightly higher than the normal for the Pacific coast and Minnesota; about normal for the Gulf States, and below the normal in the other sections, especially in the Middle Atlantic States, Ohio valley and Tennessee.

*Minimum and Maximum Temperatures, respectively:* *Maine*—at Orono, 38° and 93°; Portland, 45°, 94°. *New Hampshire*—Mount Washington, 15°, 71°; Contoocookville, 39°-94°. *Vermont*—Luenburg, 34°, 90; Burlington, 37°, 94; West Charlotte, 48°, 95°. *Massachusetts*—Waltham, 37°, 92°; Wood's Holl, 46°, 81°; Somerset, 43°, 94°. *Rhode Isla d*—Newport, 48°, 87°; Fort Adams, 51°, 78°. *Connecticut*—New Haven, 45°, 86°; Colebrook, 46°, 88°. *New York*—Madison Barracks, 33°, 95°; Rochester, 40°, 93°; New York City, 47°, 88°; West Point, 41°, 97°. *New Jersey*—East Orange, 43°, 90°; Long Branch, 50°, 92°; Atlantic City, 45°, 85°; Atco, 52°, 94°. *Pennsylvania*—near Franklin, 32°, 88°; Philadelphia, 49°, 90°; Pittsburg, 43°, 96°. *Delaware*—Dover, 58°, 90°. *Maryland*—near Woodstock, 43°, 90°; St. Inigoes, 60°, 92; Baltimore, 51°, 92°. *District of Columbia*—Washington, 48°, 96°. *Virginia*—Wytheville, 44°, 85°; Lynchburg, 51°, 93°; Norfolk, 56°, 97°. *West Virginia*—Morgantown, 41°, 90. *North Carolina*—Roan Mt., 40°, 72°; Weldon, 61°, 98°; Wilmington, 52°, 91°. *South Carolina*—Aiken, 56°, 93°; Charleston, 64°, 90°. *Georgia*—Mc Pherson Bks., 50°, 95°; Augusta, 58°, 96°. *Florida*—St. Marks, 63°, 94°; Key West, 74°, 94°; Houston, 74°, 100°. *Alabama*—Green Spring, 62°, 94°; Montgomery, 63°, 95°; Mobile, 67°, 95°. *Mississippi*—Vicksburg, 62°, 95°; near Brookhaven, 66°, 93°. *Louisiana*—Baton Rouge Bks., 60°, 96°; Shreveport, 66°, 94; New Orleans, 71°, 92°. *Texas*—Ft. Griffin, 51°, 97°; Ft. Concho, 58°, 102°; Eagle Pass, 62°, 101°; Indianola, 63°, 98°. *Ohio*—Westerville 40°, 91°; Toledo, 47°, 92°; Cincinnati, 52°, 90°; Bellefontaine, 48°, 98°. *Kentucky*—Danville, 53° 86°; Louisville, 54°, 91°; Cloverport, 57°, 94°. *Tennessee*—Knoxville 47°, 93°; Memphis, 58°, 94°; Nashville, 52° 94°. *Arkansas*—Mt. Ida, 60°, 89°; Judsonia, 60°, 90°. *Michigan*—Ft. Brady, 33°, 87°; Litchfield, 49°, 95°; Grand Haven, 40°, 87°; Detroit, 42°, 92°. *Indiana*—Vevay, 46°, 94°; Indianapolis, 50° 91°; Richmond, 50° 100°. *Illinois*—Riley, 44°, 89°; Chicago, 50°, 85°; Cairo, 57°, 89°; Anna, 57°, 94°. *Missouri*—Lebanon, 50°, 94°; St. Louis, 53°, 90°; Corning, 54°, 92°. *Kansas*—Dodge City, 48°, 95°; Leavenworth, 49°, 91°; Ft. Wallace, 54°, 95°. *Indian Territory*—Ft. Gibson, 54°, 93°; Ft. Sill, 58°, 92°. *Wisconsin*—Ashland, 32°, 90°; Milwaukee, 45°, 83°; La Crosse, 45°, 90°. *Iowa*—Logan, 44°, 86°; Keokuk, 50°, 89°; Dubuque, 45°, 91°; Guttenburg, 48°, 94°. *Nebraska*—Ft. Hartsuff, 40°, 92°; Omaha, 46°, 89°; North Platte, 45°, 92°; near Genoa, 53°, 94°. *Minnesota*—Breckenridge, 42°, 89°; St. Anthony, 53°, 88°; Duluth, 41°, 88°. *Dakota*—Ft. Pembina, 35°, 87°; Yankton, 47°, 89°; Bismarck, 46°, 92°. *Colorado*—Pike's Peak, 15°, 44°; Denver, 43°, 93°; Ft. Lyon, 48°, 99°. *Wyoming*—Cheyenne, 35°, 86°; Ft. Fetterman, 37°, 92°. *New Mexico*—Ft. Wingate, 35°, 58°; Santa Fe, 38°, 90°. *Arizona*—Yuma, 56°, 110°. *Nevada*—Winnemucca, 36, 94°; Pioche, 39°, 90°; Camp McDermit, 40°, 100°. *Utah*—Salt Lake City, 45°, 93°. *Montana*—Virginia City, 35°, 85°. *Idaho*—Boise City, 43°, 96°. *Oregon*—Roseburg, 43°, 96°; Umatilla, 48°, 103°; *California*—Santa Cruz, 40°, 80°; Fresno, 55°, 106°; Red Bluff, 53°, 105°; Visalia, 47°, 101°; San Diego, 51°, 76°; San Francisco, 51°, 73°.

*Ranges of Temperature.*—The monthly ranges will appear from an examination of above minima and maxima temperatures. The greatest daily ranges vary as follows: in New England from 21° on Mt. Washington to 31° at Burlington and Boston; Middle Atlantic States, 18° at Cape May to 29° at Norfolk; South Atlantic States, 19° at Cape Lookout to 31° at Augusta; East Gulf States, 14° at Key West to 28° at St. Marks; West Gulf States, 16° at New Orleans to 29° at Corsicana; Ohio valley and Tennessee, 20° at Cairo to 32° at Knoxville and 36° at Morgantown; Lower Lake region, 24° at Sandusky to 29° at Rochester; Upper Lake region, 20° at Chicago to 31° at Marquette; Upper Mississippi valley and Minnesota, 21° at St. Louis to 32° at Dubuque and 40° at Pembina; Lower Missouri valley, 26° at Yankton and Omaha to 29° at Leavenworth; Eastern Slope, from Dakota to northwestern Texas, 25° at Ft. Sill to 37° at Bismarck, Dodge City and McKavett; Rocky Mountains, 18° on Pike's Peak, and from 33° at Virginia City to 39° at Denver; Western Plateau, 32° at Pioche to 41° at Winnemucca; California, 18° at San Diego to 40° at Visalia; Oregon—36° at Portland to 45° at Umatilla.

*Frosts* occurred as follows: on the summit of Pike's Peak, every day; summit of Mt. Washington, from the 5th to the 13th, 25th and 26th. In *Mon ana*, on the 1st, 2d, 3d and 13th. *Dakota*, (northern portion,) on the 4th. *Iowa*, (northern portion,) on 2d, 10th, 22d. *Wisconsin*, (northern portion,) on 8th, 9th, 12th, 21st; 22d, injured vegetation at Neillsville. *Michigan*, (northern portion,) on 4th, 5th, 6th, 8th and 9th. *Illinois*, (central portion,) 22d. *Ohio* and *Pennsylvania*, (interior,) on 6th and 7th. *West Virginia*, 7th. *New York*, (northern portion,) 6th, 7th, and 26th injured vegetation. *Connecticut*, (northern portion,) 6th. *Massachusetts*, 5th and 7th, heavy, injured vegetation. *Vermont* and *New Hampshire*, 7th, severe, injured vegetation. *Maine*, (northern portion,) 2d and 7th.

*Ice* is reported to have formed at Summit, Col., on the 30th,  $\frac{1}{2}$  inch in thickness.

## PRECIPITATION.

On chart No. III is illustrated the general distribution of the rain-fall for the month. On the left side of same chart will be found a table giving the average precipitation for June by districts.

*Special Heavy Rains.*—1st and 2nd, Guttenburg, Ia., 3.70 in.; Plattsmouth, Neb., 2.98 in.; Ames, Ia., 3.43 in.; Clear Creek, Neb., 2.58 in.; Independence, Ia., 4.05 in.; Tabor, Ia., 2.50 in. 4th, Terrell, Kaufman Co., Tex., 4th to 7th, 7.50 in.; Ft. Griffin, Tex., 3rd to 5th, 4.97 in., 2.05 in. in 3 $\frac{1}{2}$  hours. 7th, Smithville, N. C., 2.89 in.; Green Spring, Ala., 7th to 8th, 2.79 in. 8th, Mill Village, N. H., 2.30 in.; Colebrook, Conn., 8th to 9th, 2.24 in.; Auburn, N. H., 3.00 in. 12th, Yankton, Dak., 12th to 13th, 3.20 in.; Point Pleasant, La., 12th to 14th, 16.55 in.; Brookhaven, Miss., 12th to 13th, 3.70 in.; Terrell, Tex., 4.50 in. 13th, Green Spring, Ala., 12th to 14th, 4.30 in.; Charleston, S. C., 2.39 in.; Montgomery, Ala., 12th to 13th, 4.20 in. in 24 hours; near Fayette, Miss., 3.40 in. 14th, Breckenridge, Minn., 1.67 in. in forty minutes. 15th, Ft. Barrancas, Fla., 14th to 17th, 9.50 in. 16th, Austin, Tex., 2.50 in. in two hours. 17th, Goldsboro, N. C., 17th to 19th, 3.85 in.; Dover, Del., 3.00 in.; Atco, N. J., 17th to 18th, 2.68 in.; Mt. Solon, Va., 17th to 18th, 2.55 in.; Danville, Ky., 5.00 in.; Vineland, N. J., 17th to 18th, 2.88 in.; Ft. Whipple, Va., 17th to 18th, 4.01 in.; Barnegat, N. J., 17 to 18th, 3.10 in.; Louisville, Ky., 2.81 in.; Washington, D. C., 17th to 18th, 4.09 in.; Sandy Spring, Md., 17th, 18th, 3.59 in. 18th, Cape Lookout, N. C., 3.17 in.; Durbarton, N. H., 18th, 19th, 2.69 in.; Ft. McKavett, Tex., over 2.00 in. in two hours. 19th, Ft. Larned, Kan., 6.00 in. 20th, Escanaba, Mich., 3.04 in.; Marquette, Mich., 5.76 in.; Iowa City, Ia., 2.29 in. 21st, Cumberland, Md., 2.20 in.; Colebrook, Conn., 2.87 in.; near Arlington, Ind., 20th to 21st, 2.25 in. 22nd, Springfield, Mass., 3.79 in.; New London, Conn., 1.95 in., in four hours. 23rd, Mt. Desert, Me., 23rd to 24th, 2.70 in.; Orono, Me., 22nd to 24th, 2.50 in.; Mechanic's Falls, Me., 22nd to 23rd, 2.25 in.; North Platte, Neb., 2.10 in.; Eastport, Me., 2.48 in. 27th, Springfield, Mass., 27th to 28th, 2.40 in.; Austin, Tex., 27th to 28th, 4.04 in. 28th, Independence, Ia., 2.70 in.; near Melissa, Tex., 5.10 in. 29th, Guttenburg, Ia., 28th to 29th, 2.62 in.; Afton, Ia., 28th to 30th, 4.45 in.; Corning, Mo., 29th to 30th, 4.30 in.; Logan, Ia., 29th to 30th, 6.00 in.; Des Moines, Ia., 2.73 in.; De Soto, Neb., 28th to 29th, 4.59 in.; Ames, Ia., 28th to 30th, 3.44 in.; near Howard, Neb., 28th to 30th, 7.61 in.; Memphis, Tenn., 1.00 in 40 minutes. 30th, Tabor, Ia., 29th to 30th, 2.97 in.; Lebanon, Mo., 2.95 in.; Plattsmouth, Neb., 29th to 30th, 2.66 in.; Omaha, Neb., 29th to 30th, 3.20 in.; Ft. Barrancas, Fla., 3.00 in.

*Largest Monthly Rain-falls.*—Point Pleasant, Tensas county, La., 18.23 inches; Terrell, Kaufman county, Tex., 17.13 in.; Fort Barrancas, Fla., 13.88 in.; near Melissa, Collin county, Tex., 13.59 in.; Trinidad, Col., 12.82 in.; Clarksville, Tex., 12.50 in.; Jacksboro, Tex., 10.91 in.; Logan, Iowa, 10.61 in.; Clear Creek, Neb., 10.22 in.; Fort Griffin, Tex., 10.19 in.; near Brookhaven, Miss., 9.75 in.; Plattsmouth, Neb., 9.64 in.; near Howard, Neb., 9.58 in.

*Smallest Monthly Rain-falls.*—At Sacramento, Fresno and Monterey, Cal., and Yuma, Arizona, none; Red Bluff, San Francisco and Visalia, light sprinkles, too small to measure; Umatilla, Or., 0.02 inches; Pioche, Nev., 0.04 in.; Santa Barbara, Cal., 0.05 in.; Camp Verde, Arizona, 0.06 in.; Los Angeles and Yreka, Cal., 0.07 in.; Camp McDermitt, Nev., 0.12 in.; Portland, Or., 0.13 in.; San Diego, Cal., 0.16 in.; Olympia, Or., 0.24 in.; Rio Grande, Tex., 0.27 in.

*Floods.*—June 1st, Milwaukee and Menomonee rivers overflowed banks. 2nd, along Turkey river, Iowa, three bridges were washed away; also much damage along Platte river, Nebraska. 3rd, Des Moines river, at Des Moines, Iowa, very high, indicating severe floods northward; R. R. tracks overflowed and city partly